Sub

## WHAT IS CLAIMED IS:

- 1. An integrated database system, comprising:
- a plurality of database systems connected to one
- 3 another by a network, each of said plurality of database
- 4 systems managing its own stored data independently of the
- 5 other database systems and accessing the stored data in
- 6 accordance with an access request; and
- an integrated database unit connected to the network,
- 8 wherein:
- 9 said integrated database unit includes:
- a directory database which stores, as to each of the
- 11 data stored in said plurality of database systems, a
- 12 correspondence with directory information and a database
- 13 system in which the data concerned is stored;
- a directory control unit which acquires, by using
- 15 said directory database, directory information
- 16 corresponding to target data of the accepted access
- 17 request:
- a database Adentifying unit which identifies, by
- 19 using said directory database, the database system
- 20 corresponding to target data of the accepted access
- 21 request; and
- a database control unit which issues, on the basis of
- 23 the acquired directory information, an access request to
- 24 the database system having the target data of the accepted



- access request, wherein: 25
- the database system includes a database server unit 26
- which accesses a database in accordance with the access 27
- request issued by said integrated database unit. 28
  - An integrated database system according to claim 1
  - 1, wherein: 2

- said directory database stores correspondences 3
- between each of the data stored in said plurality of 4
- database systems and the database system in which each of 5
- the data is stored, a local data name of each of the data, 6
- and a global data name which is an unique identifier in all 7
- of said plurality of database systems; 8
- said directory control unit receives an access 9
- request which specifies a global data name of target data 10
- of the access request, and identifies a database system and 11
- a local data name corresponding to the received global data 12
- name; and 13
- said database control unit issues the identified 14
- database system with an access request which specifies the 15
- identified local data name, and accesses the target data of 16
- the access request. 17
  - An integrated database system according to claim 1
  - 2 2, wherein:
  - said database server unit of each of said plurality 3



- 5 names which are unique identifiers in the database system
- 6 in which said database server unit is included, and
- 7 receives from said integrated database unit a request to
- 8 access the data managed by the database server unit, in
- 9 accordance with a specified local data name.
- 1 4. An integrated database system according to claim
- 2 1, wherein said integrated database unit serves as at least
- 3 one of said plurality of database systems.
- 5. An integrated database unit which integrates a
- 2 plurality of database systems connected to one another by a
- 3 network, each of said plurality of database systems
- 4 managing its own stored data independently of the other
- 5 database systems and accessing the stored data in
- 6 accordance with an access request, said integrated database
- 7 unit being connected to the network, comprising:
- a directory database which stores, as to each of the
- 9 data stored in said plurality of database systems, a
- 10 correspondence with directory information of the data and a
- 11 database system in which the data concerned is stored;
- a directory control unit which acquires, by using
- 13 said directory database, directory information
- 14 corresponding to target data of the accepted access
- 15 request;

16	a database identifying unit which identifies, by						
17	using said directory data base, the database system						
18	corresponding to target data of the accepted access						
19	request; and						
20	a database control unit which issues, on the basis of						
21	the acquired directory information, an access request to						
22	the database system having the target data of the accepted						
23	access request.						
, 1	6. An integrated database unit according to claim 5,						
2	wherein:						
3	said directory database stores correspondences						
4	between each of the data stored in the plural database						
5	systems and the database system in which each of the data						
6	is stored, a local data name of each of the data, and a						
7	global data name which is an unique identifier in all of						
8	said plurality of database systems;						
9	said directory control unit receives an access						
10	request which specifies a global data name of target data						
11	of the access request, and identifies a database system and						
12	a local data name corresponding to the received global data						
13	name; and						
14	said database control unit issues the identified						

the access request.

database system with an access request which specifies the

identified local data name, and accesses the target data of

1	7. A database access method for an integrated
2	database system which includes a plurality of database
3	systems connected to one another by a network, each of said
4	plurality of database systems managing 1ts own stored data
5	independently of the other database systems and accessing
6	the stored data in accordance with an access request, said
7	database access method which accesses the data stored in
8	said plurality of database systems, comprising the steps
9	of:
10	in an integrated database unit which is connected to
11	the network and includes a directory database which stores,
12	as to each of the data stored in said plurality of database
13	systems, a correspondence with directory information of the
14	data and a database system in which the data concerned is
15	stored,
16	acquiring, by using the directory database, directory
17	information corresponding to target data of an accepted
18	access request;
19	identifying, by using the directory database, the
20	database system corresponding to target data of an accepted
21	access request;
22	issuing, on the basis of the acquired directory
23	information, an access request to the database system
24	having the target data of the accepted access request; and
25	accessing a database in the database system in
26	accordance with the access request issued by said

- 27 integrated database unit.
  - 8. A database access method according to claim 7,
  - 2 further comprising the steps of:
  - in said integrated database unit in which said
  - 4 directory database stores correspondences between each of
  - 5 the data stored in the plural database systems and the
  - 6 database system in which each of the data is stored, a
  - 7 local data name of each of the data, and a global data name
  - 8 which is an unique identifier in all of said plurality of
  - 9 database systems,
- receiving an access request which specifies a global
- 11 data name of target data of the access request;
- 12 identifying a database system and a local data name
- 13 corresponding to the received global data name; and
- 14 issuing the identified database system with an access
- 15 request which specifies the identified local data name, and
- 16 accessing the target data of the access request.
  - 9. A database access method according to claim 8,
  - 2 wherein each of the database systems receives from said
  - 3 integrated database unit a request to access data managed
  - 4 by a database server unit, in accordance with a specified
  - 5 one of local data names which are managed by and are unique
  - 6 identifiers in the database system in which said database
  - 7 server unit is included.

1	10. A program product which causes a computer to
2	execute access to data stored in a plurality of database
3	systems, the computer constituting: the plurality of
4	database systems connected to one another through a
5	network, each of the plurality of database systems managing
6	its own stored data independently of the other database
7	systems and accessing the stored data in accordance with an
8	access request; and an integrated database unit connected
9	to the network, wherein:
.0	said program product comprising:
.1	a code which causes an integrated database unit
.2	connected to the network and including a directory database
13	to acquire, by using said directory database, directory
4	information corresponding to target data of an accepted
15	access request, said directory database storing, as to each
L 6	of the data stored in said plurality of database systems, a
17	correspondence with the directory information of the data
18	and a database system in which the data concerned is
19	stored;
20	a code which causes said integrated database unit to
21	identify, by using said directory database, a database
22	system corresponding to target data of an accepted access
23	request;
24	a code which causes said integrated database unit to
25	issue, on the basis of the acquired directory information,
26	an access request to said database system having the targe





- 27 data of the accepted access request; and
- a code which causes said database system to access a
- 29 database in accordance with the access request issued by
- 30 said integrated database unit.
- 1 11. A program product according to claim 10, further
- 2 comprising:
- a code which causes said integrated database unit to
- 4 store, in said directory database, correspondences between
- 5 each of the data stored in said plurality of database
- 6 systems and the database system in which each of the data
- 7 is stored, a local data name of each of the data, and a
- 8 global data name which is an unique identifier in all of
- 9 said plurality of database systems,
- a code which causes said integrated database unit to
- 11 receive an access request which specifies a global data
- 12 name of target data of the access request;
- a code which causes said integrated database unit to
- 14 identify a database system and a local data name
- 15 corresponding to the received global data name; and
- a code which causes said integrated database unit to
- 17 issue the identified database system with an access request
- 18 which specifies the identified local data name, and
- 19 accessing the target data of the access request.
  - 1 12. A program product according to claim 11, further



- 2 comprising:
- a code which causes each of said plurality of
- 4 database systems to receive from said integrated database
- 5 unit a request to access data managed by a database server
- 6 unit, in accordance with a specified one of local data
- 7 names which are managed by and are unique identifiers in
- 8 the database system in which the database server unit is
- 9 included.
- 1 13. A program product according to claim 10, wherein
- 2 the computer which constitutes said database systems and
- 3 said integrated database unit has a readable storage medium
- 4 in which said codes are held.
- 1 14. A program product according to claim 10, wherein
- 2 said codes are stored through the network into the computer
- 3 which constitutes said database systems and said integrated
- 4 database unit.
- 1 15. A storage medium which stores a program which
- 2 causes a computer to execute access to data stored in a
- 3 plurality of database systems, said computer constituting:
- 4 said plurality of database systems connected to one another
- 5 through a network, each of said plurality of database
- 6 systems managing it's own stored data independently of the
- 7 other database systems and accessing the stored data in



8	accordance	with	an	access	request;	and	an	integrated
---	------------	------	----	--------	----------	-----	----	------------

- 9 database unit connected to the network, wherein:
- said program comprising:
- a code which causes an integrated database unit
- 12 connected to the network and including a directory database
- 13 to acquire, by using the directory database, directory
- 14 information corresponding to target data of an accepted
- 15 access request, said directory database storing, as to each
- 16 of the data stored in said plurality of database systems, a
- 17 correspondence with the directory information of the data
- 18 and a database system in which the data concerned is
- 19 stored;
- 20 a code which causes said integrated database unit to
- 21 identify, by using said directory database, a database
- 22 system corresponding to target data of an accepted access
- 23 request;
- a code which causes said integrated database unit to
- 25 issue, on the basis of the acquired directory information,
- 26 an access request to the database system having the target
- 27 data of the accepted access request; and
- a code which causes the database system to access a
- 29 database in accordance with the access request issued by
- 30 said integrated database unit.